PTO/SB/30 (09-03)
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Request	Application Number	09/101,518							
For Continued Examination (RCE)	Filing Date	December 21, 1998							
Transmittal	First Named Inventor	Yi Li							
Address to: MS RCE	Art Unit	1646							
Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Examiner Name	M. D. Pak							
Alexandria, VA 22010-1400	Attomey Docket Number	PF218PCT							
This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.  Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application.									
Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).									
a. Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.									
i. Consider the arguments in the Appeal Brief or Reply Brief previously filed on									
ii. Other									
b. x Enclosed									
i. X Amendment/Reply iii. Information Disclosure Statement (IDS)  ii. Affidavit(s)/Declaration(s) iv. X Other Applicant Initiated Interview Request									
ii. Affidavit(s)/Declaration(s) iv	Other Applicant II	nitiated interview Request							
2. Miscellaneous	4	day 07 OFB 4 400(a) for a							
a. Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a  period of months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)									
b. Other									
3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.									
a. X The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. 08-3425									
i. RCE fee required under 37 CFR 1.17(e)	)								
ii. Extension of time fee (37 CFR 1.136 and	1.17)								
iiiOther									
b Check in the amount of \$	enclosed								
c. Payment by credit card (Form PTO-2038 enclosed)									
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED									
Name (Print/Type) Mark J. Hyman Signature \( \begin{array}{cccccccccccccccccccccccccccccccccccc	Registration No. (Attorn	, , , , , , , , , , , , , , , , , , , ,							
Signature / VVL / VI	Date	July 1, 2004							

PTO/SB/17 (10-03)
Approved for use through 7/31/2006. OMB 0651-0032
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Complete if Known

FEE TRANSMITTAL for FY 2004  Effective 10/01/2003. Patent fees are subject to annual revision.		Application Number			er (	09/101,518		
		Filing Date				December 21, 1998		
		First Named Inventor				Yi Li		
		Examiner Name				M. D. Pak		
Applicant claims small entity status. See 37 CFR 1.27	Art Unit				1646			
TOTAL AMOUNT OF PAYMENT (\$) 770.00	Attorney Docket No.			). I	PF218PCT			
METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)							
Check Credit Money Other None	3. ADDITIONAL FEES							
Card Corder C	S. ADDITIONALY ELS							
X Deposit Account:	Large Entity Small Entity							
Account Number 08-3425	Fee Code	Fee (\$)	Fee Code	Fee (\$)		Fee Desc	ription	Fee Paid
Deposit Account Human Genome Sciences, Inc.	1051	130	2051	65	Surcharge -	- late filing fe	e or oath	
Name The Director is authorized to: (check all that apply)	1052	50	2052	25	Surcharge - sheet.	- late provisio	onal filing fee or cover	
X Charge fee(s) indicated below X Credit any overpayments	1053	130	1053	130		n specification	n	
X Charge any additional fee(s) or any underpayment of fee(s)	1812	2,520	1812	2,520	_		parte reexamination	
Charge (cots) indicated below assess for the filler for	1804	920*	1804	920*	Requesting Examiner a		of SIR prior to	
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1805	1,840*	1805	1,840*	Requesting	publication o	f SIR after	
FEE CALCULATION	1251	110	2251	55	Examiner at Extension for	ction or reply withir	n first month	
1. BASIC FILING FEE	1252	420	2252	210	Extension fo	or reply within	n second month	
Large Entity Small Entity	1253	950	2253	475	Extension fo	or reply within	third month	
Fee Fee Fee Fee Fee Description Fee Paid  Code (\$) Code (\$)	1254	1,480	2254	740	Extension for	or reply within	fourth month	
1001 770 2001 385 Utility filing fee	1255	2,010	2255	1,005	Extension fo	or reply within	n fifth month	
1002 340 2002 170 Design filing fee	1401	330	2401	165	Notice of Ap	peal		
1003 530 2003 265 Plant filing fee	1402	330	2402	165	_	f in support a	f an appeal	
1004 770 2004 385 Reissue filing fee	1403	290	2403	145	•	oral hearing		
1005 160 2005 80 Provisional filing fee	1451 1452	1,510 110	1451 2452	1,510 55		· ·	lic use proceeding	
SUBTOTAL (1) (\$) 0.00	1453	1,330	2453	665		Petition to revive – unavoidable Petition to revive - unintentional		
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1501	1,330	2501	665	Utility issue	fee (or reissu	ue)	
Extra Fee from Clalms below Fee Paid	1502	480	2502	240	Design issu	e fee		
Total Claims 100 -105** = 0 x	1503	640	2503	320	Plant issue	fee		
Independent 9 -10** = 0 x ==	1460	130	1460	130	Petitions to	the Commiss	sioner	
Multiple Dependent	1807	50	1807	50	Processing	fee under 37	CFR 1.17(q)	
Large Entity   Small Entity	1806	180	1806	180	Submission	of Informatio	on Disclosure Stmt	
Fee Fee Fee Fee Pescription	8021	40	8021	40			ssignment per	
1202   18   2202   9   Claims in excess of 20	1809	770	2809	385	Filing a sub	mission after	of properties) final rejection	<del>                                     </del>
1201 86 2201 43 Independent claims in excess of 3					(37 CFR 1.1 For each ad	129(a)) Iditional invei	ntion to be	
1203 290 2203 145 Multiple dependent claim, if not paid 1204 86 2204 43 ** Reissue independent claims	1810	770	2810	385	examined (3	37CFR 1.129		770.00
over original patent	1801	770 900	1802	385 900	Request for	expedited ex	, ,	770.00
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	Other fee (specify)							
SUBTOTAL (2) (\$) 0.00	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 770.00							
**or number previously paid, if greater; For Reissues, see above								
SUBMITTED BY	D					(Complete	(if applicable))	
Name (Print/Type) Mark J. Hyman		tration No ey/Agent)		,789		Telephone	(240) 314-1224	
Signature M/L				_		Date	July 1, 2004	



# INITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Docket No.: PF218PCT

Li

Application No.: 09/101,518-Conf. #9737

Filed: December 21, 1998 Group Art Unit: 1646

For: **Human G-Protein Chemokine Receptor** Examiner: M. Pak

HSATU68

### RESPONSE UNDER 37 C.F.R. § 1.111

#### **MS Amendment**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In response to the Final Official Action dated April 6, 2004, Applicant hereby requests the following remarks be entered into the above-identified application. Applicant submits herewith (a) a Fee Transmittal Sheet; (b) a Request for Continued Examination under 37 C.F.R. § 1.114; and (c) an Applicant Initiated Interview Request form (PTOL-413A). Applicant requests that the Examiner contact the undersigned to schedule the requested personal interview prior to the next office action.

Claims 29-128 are pending in the above-captioned application. Claims 33-50, 56-63, 65-73, 79-96, 102-109, 111-119, and 124-128 have been withdrawn from consideration by the Examiner.

# I. Restriction

Pursuant to the Final Official Action mailed April 6, 2004, the Examiner has made final the restriction between Groups 1-13, as defined by the Examiner in Paper No. 12, mailed March 28, 2001, and the further restriction of Groups 14-18, as defined by the Examiner in Paper No. 17, mailed December 17, 2001. In particular, the Examiner alleges that the Declaration of Yi Li (hereinafter "the Declaration") is unpersuasive in that the claims allegedly fail to provide adequate support under 35 U.S.C. §112.

Applicant respectfully disagrees. For the reasons set forth in the amendment and response submitted to the Patent Office on December 16, 2003 (hereinafter "the December 16, 2003 response), Applicant maintains that the restriction requirements are improper. Thus, Applicant respectfully reserves the right to petition from the restriction requirement under 37 C.F.R § 1.144.

# II. <u>Declaration</u>

The Examiner alleges that the Declaration is ineffective to overcome the Marchese et al. reference with regard to lack of unity because the claims fail to provide adequate support under 35 U.S.C. § 112 for certain claims. *See*, page 3, section 5.

In response, the basis for the Examiner's statement that the Declaration is unpersuasive is not clear to Applicant. In particular, Applicant does not understand the Examiner's position that a Declaration antedating a prior art reference can be rendered ineffective by an alleged lack of support by the claims for certain claims under 35 U.S.C. § 112. Applicant requests that the Examiner clarify this position during the requested interview. The Examiner's additional assertions regarding § 112 are addressed in section IV below.

Applicant reiterates that the Declaration shows possession of the same subject matter as the Marchese reference, *e.g.*, the polynucleotide sequence of claim 1, prior to the publication date of that reference. Thus, as stated in Applicant's response dated December 19, 2003, the Declaration clearly provides adequate support to antedate the Marchese reference and for Applicant's assertion that the instant invention possesses a special technical feature over the prior art.

# III. Rejections under 35 U.S.C. § 101 and 112, First Paragraph

The Examiner has maintained the rejection of claims 29-32, 51-55, 64, 74-78, 97-101, 120-123, and 127-128 under 35 U.S.C. § 101 for alleged lack of utility. More particularly, the Examiner contends that

It is only with the post filing date reference that one skilled in the art is aware of the treatment of tumor with the receptor which was previous to the post filing date publication only known as an orphan receptor. ... Furthermore, at the filing date of the application, the specification lists many different diseases on pages 5 and 22 which have no nexus to treatment with the claimed receptor.

Page 3-4, section 6, third paragraph.

Applicant respectfully disagrees, and traverses this rejection.

Applicant reiterates that the proper legal standard to judge utility rests on whether one of skill in the art, upon reading the entire specification, would find the asserted utilities for the claimed invention an "inherently unbelievable undertaking or involve implausible scientific principles," regardless of whether or not further research is required. *Nelson v. Bowler*, 626 F.2d 853, 857 (C.C.P.A. 1980). Thus, for the reasons set forth in the December 16, 2003, response, the specification teaches the specific, substantial, and credible asserted utility that provides the nexus that the Examiner contends is lacking.

For example, the specification clearly teaches that the polypeptide of the invention is a novel member of the chemokine receptor family. In addition, the specification describes how to make and use antibodies that specifically bind the polypeptide of the invention for the diagnosis and/or treatment of tumors, such as leukemia. (*See*, December 16, 2003 response, paragraph spanning pages 19-20). Applicant has also submitted post-filing date reference, Lasagni *et al*, which fully corroborates the assertions made in the specification. In particular, Lasagni *et al*. describe the polypeptide of the instant invention and provide data corroborating Applicant's assertion that the polypeptide, and thus antibodies that specifically bind thereto, would be useful in the diagnosis and/or treatment of tumors. (*See*, December 16, 2003 response, page 20, second paragraph to page 21, first paragraph).

Thus, Applicant maintains that a skilled artisan would find the specification's assertions that the antibodies of the invention have uses, for example, in the diagnosis and/or treatment of tumors, such as leukemia, to be specific, substantial, and credible based on the totality of the evidence presented in the December 16, 2003 response. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. § 101 be reconsidered and withdrawn.

The Examiner has also rejected claims 29-32, 51-55, 64, 74-78, 97-101, 110, 120-123, and 127-128 under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement based on the alleged lack of utility. For the reasons set forth in the December 16, 2003 response and above, Applicant maintains that the instant invention complies with the utility requirements of 35 U.S.C. § 101. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

# IV. Rejections under 35 U.S.C. § 112, First Paragraph

The Examiner has maintained the rejection of claims 29-32, 51-55, 64, 74-78, 97-101, 110, 120-123, and 127-128 under 35 U.S.C. § 112, first paragraph for alleged lack of written description. More particularly, the Examiner asserts that:

one of skilled in the art cannot envision the full genus of antibodies which bind variants whose structure is not known or other variant proteins with different function from SEQ ID NO:2 taught in the specification because the term "comprising" encompass structures which is not part of SEQ ID NO:2

See, page 5, section 7, third paragraph.

Applicant respectfully disagrees and traverses this rejection.

Applicant notes that the Examiner has alleged that the claims at issue contain the open-ended "comprising" and "variant" language. However, the claims were amended in the December 16, 2003 response to remove such language, leaving only closed language, e.g., "a protein whose sequence consists of amino acid residues 1 to 415 of SEQ ID NO:2." (See December 16, 2003 response, page 26, Section IV, second paragraph). No "variant" limitations (e.g., percent identity) are present in the pending claims. Therefore, in light of this amendment and the arguments set forth in the December 16, 2003, response, Applicants contend that the instant claims are adequately described by the specification as filed. Should the Examiner not agree, Applicants respectfully request that the Examiner clearly explain with particularity the alleged deficiencies in the language of the pending claims.

Accordingly, Applicant respectfully requests that the rejection of the claims 29-32, 51-55, 64, 74-78, 97-101, 110, 120-123, and 127-128 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

#### Conclusion

Applicant respectfully requests that the above-made remarks and amendments be entered and made of record in the file history of the instant application. In view of the foregoing remarks, Applicant believes that this application is now in condition for allowance, and an early notice to that effect is urged. The Examiner is invited to call the undersigned at the phone number provided below to schedule the requested Personal Interview. If there are any fees due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension

of time under 37 C.F.R. § 1.136, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: July 1, 2004

Respectfully submitted,

Mark J. Hynfan

Registration No.: 46,789

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KKH/MJH/KC/lcc